

As an alternative granulation method for production of a pigment granulate intended for immediate dissolution in water, or in at least another dissociating liquid, or in such liquid mixtures with release of its ingredients, in which the ingredients present in particulate form and the dispersant particles, the latter in the form of at least a cellulose-containing material, are initially mixed essentially homogeneously and are then present as a suspension, the spray-drying or fluidized bed method is proposed, in which suspension drops of adjustable size migrate through a heated gaseous medium and the mixture of ingredients contained in the suspension drops and the cellulose-containing material aggregate to a granulate grain. It has turned out that the cellulose-containing material has an extraordinary energy-saving effect here, in which the porosity of the cellulose-containing material makes the critical contribution to this. Redispersal of the granulate so produced is extremely successful; this also occurs with good transport, metering and storage capability, as well as low dust content of the pigment granulate.

When the readily flowable and low-dust granulate comes in contact with an aqueous liquid, the granulate is destroyed by the swelling process of the cellulose-containing material and the particles of the ingredients are homogeneously distributed in the application medium.

Claims

1. Method for production of a pigment granulate intended for immediate dissolution in water, or in at least one other dissociating liquid, or in liquid mixtures with release of its ingredients under the influence of at least one dispersant,

characterized by the fact

that the ingredients and the dispersant are present in particulate form, that the dispersant is present in the form of at least a cellulose-containing material, and that the particles of the ingredients and dispersant are homogeneously mixed dry or wet and then formed dry or wet into a pigment granulate.

2. Method for production of a pigment granulate intended for immediate dissolution in water, or in at least one other dissociating liquid, or in liquid mixtures containing such a liquid with release of its ingredients under the influence of at least one dispersant, characterized by the fact that the ingredients and the dispersant are essentially homogenously mixed in particulate form in a liquid and are present as a suspension, and the suspension is subjected to spray-drying or fluidized bed drying, in which the mixture contained in the suspension drops of ingredients and dispersant aggregate into a granulate.

3. Method according to Claim 1 or 2, characterized by the fact that the ingredients are at least partially pregranulated before mixing.

4. Method according to one of Claims 1-3, characterized by the fact that the particles of the dispersant are at least partially pregranulated before mixing.

5. Method according to one of Claims 1, 3 or 4, characterized by the fact that the pigment granulate is produced by compaction (mechanical compression) or by buildup granulation or a combination of these methods.

6. Method according to Claim 5, characterized by the fact that the pigment granulate is produced by a combination of the method according to Claims 2 and 5.

7. Pigment granulate intended for immediate dissolution in liquid with release of its ingredients, including ingredients present in particulate form, including at least one pigment and at least one dispersant, characterized by the fact that the pigment granulate consists of an essentially homogenous mixture of ingredients and dispersant, and the dispersant includes at least one particulate cellulose-containing material.

8. Pigment granulate according to Claim 5, characterized by the fact that the ingredients, before mixing, have a particle size from 0.5-10,000 µm, preferably a particle size from 1-2000 µm or 10-500 µm.

9. Pigment granulate according to Claim 7 or 8, characterized by the fact that the cellulose-containing material of the dispersant, before mixing, has a particle size from 20-2200 µm, preferably 25-500 µm.

10. Pigment granulate according to one of Claims 7-9, characterized by the fact that, when the cellulose-containing material of the dispersant is pregranulated before mixing, the pregranulated cellulose-containing material has a particle size from 0.1-6.0 mm, preferably 0.2-1.0 mm.

11. Pigment granulate according to one of Claims 7-10, characterized by the fact that the pigment granulate contains the cellulose-containing material in a weight fraction from 0.5-80%, preferably from 1-15%.

12. Pigment granulate according to one of Claims 7-11, characterized by the fact that the cellulose-containing material has a coating with auxiliaries that promote processing, like maltodextrin, CMC (carboxymethylcellulose), gum arabic, dextrose, agar agar, polyvinyl alcohol (PVA), silica or tricalcium phosphate.

13. Pigment granulate according to one of Claims 7-12, characterized by the fact that the cellulose-containing material is obtained from wood.

14. Pigment granulate according to Claim 13, characterized by the fact that the cellulose-containing material includes TMP (thermomechanical pulp).

15. Pigment granulate according to Claim 13, characterized by the fact that the cellulose-containing material contains CTMP (chemithermomechanical pulp).

16. Pigment granulate according to one of Claims 7-15, characterized by the fact that the cellulose-containing material includes cellulose.

17. Use of pigment granulate according to one of Claims 7-16, characterized by the fact that it is redispersed in water, or at least one other dissociating liquid or liquid mixtures containing such with release of its ingredients.